

Appl. No. 10/055,501
Amendment dated December 16, 2004
Reply to Final Rejection of December 1, 2004

REMARKS/ARGUMENTS

Entry of the instant Amendment is respectfully requested on the grounds that it raises no new issues, would not require any additional search and, in the event the finality of the rejection is maintained, would place the claims in simpler form for purposes of an appeal.

All of the remaining claims in the application, comprising claims 6-10 and 18-19 stand finally rejected under 35 USC §§112 and 103. These rejections are respectfully traversed for the reasons stated herein.

However, before addressing these rejections, applicant respectfully requests withdrawal of the finality of the rejection. As set forth in MPEP 706.0.7(a), "A second or any subsequent action on the merits in any application... should not be made final if it includes a rejection, on prior art not of record, of any claim amended to include limitations which should reasonably have been expected to be claimed." Here, Shalaby et al. U.S. Patent No. 5,847,012 was not of record in this application until issuance of the instant Office Action. See the enclosed Notice of References Cited that was appended to the first Office Action dated March 3, 2004. Both claims 6-10, amended to specify applicant's process, and claims 18-19, which are product-by-product claims dependent from independent claim 6 and that merely specify the size of the pores of the membrane, should reasonably have been expected to be so amended.

Turning to the merits, all of the above-mentioned claims stand rejected under 35 USC 112, the Examiner reasoning that the limitation "in the absence of a nucleating agent" in independent claim 6 is not supported in the specification, contending that the specification does

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not guide one of ordinary skill in the art to specifically exclude a nucleating agent. The Examiner goes on to assert the legal proposition that the mere absence of a positive recitation is not a basis for exclusion, pointing to MPEP 2173.05(i).

In response, applicant points out that that MPEP 2173.05(i) clarifies that “a lack of literal basis in the specification for a negative limitation may not be sufficient to establish a *prima facie* case for lack of descriptive support” (emphasis added), citing *Ex parte Parks*, 30 USPQ 2d 1234, 1236 (Bd Pat App. & Inter 1993). A reading of the *Parks* case is instructive. In that case, the Examiner finally rejected certain claims under 35 USC 112 for lack of adequate descriptive support for the limitation “in the absence of a catalyst.” The Board agreed that there was no specific statement in the original specification to the effect that the claimed method could or should be conducted in the absence of a catalyst. However, the Board took note of the fact that the specification, in describing the process, made no mention of a catalyst being used in the method in question. The Board further noted that there was evidence of record to the effect that one of ordinary skill in the art would have recognized that the generation of nitric oxide according to the equation disclosed in the specification was conducted without a catalyst. On this basis, the Board reversed the Examiner’s rejection under 35 USC 112.

Here, applicant respectfully submits that there is also evidence of record from which one of ordinary skill in the art would conclude that applicant’s claimed method is conducted in the absence of a nucleating agent. This evidence is submitted to reside both in applicant’s specification and in the prior art of record in this case. As to applicant’s specification, the Example set forth at pages 12-13 very clearly states that the only materials used

are pellets of the polymer that is extruded and a cell former comprising carbon dioxide and water. Park et al. U.S. Patent No. 5,149,579, which discloses the formation of a foamed polymeric sheet having a cell structure, teaches one of ordinary skill in the art what exactly a nucleating agent is in this art. Specifically, it is stated at column 10, lines 12-29 of that patent that a nucleating agent is an inert solid very small particle in the range of 0.3 to 5.0 microns, examples of which include a mixture of citric acid and sodium bicarbonate and a mixture of talc and titanium dioxide. Given this knowledge, one of ordinary skill in the art of fabrication of foamed polymeric sheets would readily understand that applicant's Example at pages 12-13 of the specification does not include a nucleating agent inasmuch as there is no mention of any solid particle being used in the process described there.

Furthermore, one of ordinary skill in the art would understand that the only other materials besides the polymer used in applicant's Example, carbon dioxide and water, do not comprise nucleating agents, but rather comprise a blowing agent in the case of carbon dioxide and an endothermic agent in the case of water. See the Abstract of Welsh et al. U.S. Patent No. 5,340,844, previously cited by the Examiner, which is directed to a foamed polystyrene product. Thus, even though there may be no literal basis in applicant's specification for the limitation of charging the polymer melt in the absence of a nucleating agent, there is nevertheless submitted to be adequate evidence of record to support the notion that one of ordinary skill in the art would recognize that applicant's process is indeed conducted in the absence of a nucleating agent. Accordingly, reconsideration of the §112 rejection is respectfully requested.

Turning to the obviousness rejection, claims 18-19 stand rejected under 35 USC 103(a) as being unpatentable over the aforementioned Shalaby patent, the Examiner apparently reasoning that that patent teaches a microporous foam structure inherently having all of the same limitations claimed by applicant pertaining to proportion of open cells, void fraction, open-pore size distribution and average pore diameter. In response, applicant respectfully points out that it is incumbent upon the Examiner to make out a *prima facie* case of obviousness in the first instance. Here, it is undisputed that the Shalaby patent discloses an entirely different method of making a foamed polymeric structure than that disclosed and claimed by applicant. More specifically, Shalaby discloses no extrusion step, no charging the polymer with a cell former, no feeding of the charged polymer melt to a post-injection second mixing stage by a first melt pump, no forcing of the polymer melt through a die and no charging of the polymer melt with a cell former in response to pressure drop occurring upon passage of the polymer melt through the die, all as claimed by applicant. Instead, Shalaby merely mixes a polymer and a fugitive compound, heats the polymer/fugitive compound mixture until the polymer melts, then quenches the melt to obtain a solid foam precursor which is then either heated under vacuum or simply washed with a solvent to remove the fugitive compound. With such radically different processes, why does the Examiner assume that the two processes would produce the same results? Some reasoned explanation for the Examiner's position is respectfully submitted to be in order. Reconsideration of the obviousness rejection of claims 18-19 is respectfully requested.

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For the reasons stated, early and favorable reconsideration of all of the claims in the application is respectfully requested.

Respectfully submitted,

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CERTIFICATE OF MAILING

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Dec 16, 04

Date



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